

What is claimed is:

1. A light source device, comprising:

a base having an upper surface and a cavity located at the upper surface;

an LED chip located adjacent the cavity of the base;

a resin portion located adjacent the LED chip;

an optical member disposed above the base and apart from the LED chip and having an inner surface;

a light shielding portion disposed on the inner surface of the optical member and configured to form a cutoff suited for a light distribution pattern; and

a fluorescent substance layer disposed at least in a region other than the light shielding portion on the inner surface of the optical member.

2. The light source device according to claim 1, wherein the base includes a heat radiating core.

3. The light source device according to claim 1, wherein the base is formed from a ceramic material.

4. The light source device according to claim 1, wherein the optical member is a lens.

5. The light source device according to claim 1, wherein the optical member is a flat cover.

6. The light source device according to claim 1, wherein the light shielding portion is positioned within 2mm from the LED chip.

7. The light source device according to claim 1, wherein the light shielding portion includes a thin film formed adjacent the inner surface of the optical member.

8. The light source device according to claim 1, wherein the light shielding portion includes a plate member adhered to the inner surface of the optical member.

9. The light source device according to claim 8, wherein the plate member has a given thickness along the optical axis.

10. The light source device according to claim 1, further comprising:
a second light shielding portion disposed on an outer surface of the optical member.

11. The light source device according to claim 1, wherein an inner surface of the light shielding portion includes a reflection surface.

12. The light source device according to claim 11, wherein the reflection surface is disposed at a slant so as to reflect light from the LED chip.

13. The light source device according to claim 12, wherein the light source device is configured to emit light along an optical axis, and the base cavity includes a second reflection surface confronting the reflection surface of the light shielding portion and the second reflection surface is configured to reflect reflected light from the reflection surface of the light shielding portion toward the optical axis.

14. The light source device according to claim 11, wherein the reflection surface includes a thin metal film formed on the light shielding portion.

15. The light source device according to claim 11, wherein the reflection surface includes a surface of the light shielding portion made of a metallic material.

16. The light source device according to claim 1, wherein the fluorescent substance layer is formed in thin film form.

17. The light source device according to claim 16, wherein the fluorescent substance layer is formed by impregnating silicon film with a fluorescent substance.

18. The light source device according to claim 17, wherein the optical member and an inner surface of the light shielding portion are each at least partially coated with a SiO₂ layer.

19. The light source device according to claim 16, wherein the light source is configured to emit light along an optical axis and the fluorescent substance layer is thinner with increasing distance from the optical axis.

20. The light source device according to claim 5, wherein an outer surface of the flat cover is provided with a microtexture structure at least in a region not corresponding to the light shielding portion.

21. The light source device according to claim 20, wherein the microtexture structure is formed on a surface of the flat cover.

22. The light source device according to claim 20, wherein the microtexture structure is formed in sheet form as a separate body from the flat cover and adhered to an outer surface of the flat cover.

23. The light source device according to claim 20, wherein the microtexture structure is formed on a surface not corresponding to the light shielding portion of the flat cover, and

wherein the second light shielding portion is formed projecting along the optical axis on a surface corresponding to the light shielding portion of the flat cover.

24. A vehicle headlight comprising:

the light source device according to claim 1; and

a projection lens disposed adjacent the light source device and having a focus located in the vicinity of the light shielding portion, wherein the projection lens is configured to irradiate emission light forward in a shape defined by the light shielding portion.

25. The light source device according to claim 1, wherein the light shielding portion is positioned within 1 mm from the LED chip.

26. The light source device according to claim 1, wherein the light source device is configured as a vehicle headlight and the light shielding portion is configured to produce a low-beam vehicle light distribution.